

Appln. No. 10/047,032  
Amdt. dated December 7, 2005  
Reply to Office Action dated October 20, 2005

IN THE CLAIMS:

Please amend claims 1-20 as follows. The following listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim 1 (Currently Amended). A transmission system [[(10)]] comprising

a transmitter [[(12)]] for transmitting an input signal to a receiver [[(14)]] via a transmission channel [[(16)]], the transmitter [[(12)]] comprising a splitter [[(20)]] for splitting up a single input signal on a single input line into at least first and second frequency band signals, the transmitter [[(12)]] further comprising a first encoder [[(22)]] for encoding the first frequency band signal into a first encoded frequency band signal and a second encoder [[(24)]] for encoding the second frequency band signal into a second encoded frequency band signal, the transmitter [[(12)]] being arranged for transmitting the first and second encoded frequency band signals via the transmission channel [[(16)]] to the receiver [[(14)]],  
the receiver [[(14)]] comprising a first decoder [[(26)]]

Appln. No. 10/047,032  
Amdt. dated December 7, 2005  
Reply to Office Action dated October 20, 2005

for decoding the first encoded frequency band signal into a first decoded frequency band signal and a second decoder [[(28)]] for decoding the second encoded frequency band signal into a second decoded frequency band signal, the receiver [[(14)]] further  
20 comprising a combiner [[(30)]] for combining the first and second decoded frequency band signals into [[an]] a single output signal, the receiver [[(14)]] further comprising reconstruction means [[(48)]] for reconstructing the second decoded frequency band signal when the second decoded frequency band signal is not  
25 available,

characterised in that the reconstruction means [[(48)]] are arranged for reconstructing the second decoded frequency band signal from the first decoded frequency band signal.

Claim 2 (Currently Amended). The transmission system  
[[(10)]] according to claim 1, characterised in that the reconstruction means [[(48)]] are arranged for reconstructing the second decoded frequency band signal from the first decoded  
5 frequency band signal by extending a bandwidth of the first decoded frequency band signal.

Appn. No. 10/047,032  
Amdt. dated December 7, 2005  
Reply to Office Action dated October 20, 2005

Claim 3 (Currently Amended). The transmission system [[(10)]] according to claim 1, characterised in that the reconstruction means [[(48)]] are arranged for reconstructing a present frame of the second decoded frequency band signal from a 5 present frame of the first decoded frequency band signal and from a previous frame of the second decoded frequency band signal.

Claim 4 (Currently Amended). The transmission system [[(10)]] according to claim 1, characterised in that the first frequency band signal and the first encoded frequency band signal and the first decoded frequency band signal are signals having a 5 low frequency band and in that the second frequency band signal and the second encoded frequency band signal and the second decoded frequency band signal are signals having a high frequency band.

Claim 5 (Currently Amended). A receiver [[(14)]] for receiving, via a transmission channel [[(16)]], first and second encoded frequency band signals derived from a single input signal from a transmitter [[(12)]], the receiver [[(14)]] comprising 5 a first decoder [[(26)]] for decoding the first encoded frequency band signal into a first decoded frequency band signal,\_

Appln. No. 10/047,032  
Amdt. dated December 7, 2005  
Reply to Office Action dated October 20, 2005

[[and]]

a second decoder [[(28)]] for decoding the second encoded frequency band signal into a second decoded frequency band  
10 signal, the receiver [[(14)]] further comprising  
a combiner [[(30)]] for combining the first and second decoded frequency band signals into [[an]] a single output signal, the receiver [[(14)]] further comprising reconstruction means [[(48)]] for reconstructing the second decoded frequency band signal when the second decoded frequency band signal is not available, characterised in that the reconstruction means [[(48)]] are arranged for reconstructing the second decoded frequency band signal from the first decoded frequency band signal.

Claim 6 (Currently Amended). The receiver [[(14)]] according to claim 5, characterised in that the reconstruction means [[(48)]] are arranged for reconstructing the second decoded frequency band signal from the first decoded frequency band  
5 signal by extending a bandwidth of the first decoded frequency band signal.

Claim 7 (Currently Amended). The receiver [[(14)]]

Appln. No. 10/047,032  
Amdt. dated December 7, 2005  
Reply to Office Action dated October 20, 2005

according to claim 5, characterised in that the reconstruction means [(48)] are arranged for reconstructing a present frame of the second decoded frequency band signal from a present frame of 5 the first decoded frequency band signal and from a previous frame of the second decoded frequency band signal.

Claim 8 (Currently Amended). The receiver [(14)] according to claim 5, characterised in that the first encoded frequency band signal and the first decoded frequency band signal are signals having a low frequency band and in that the second 5 encoded frequency band signal and the second decoded frequency band signal are signals having a high frequency band.

Claim 9 (Currently Amended). A method of transmitting a single input signal via a transmission channel [(16)], the method comprising:

- splitting up the single input signal into at least 5 first and second frequency band signals,
- encoding the first frequency band signal into a first encoded frequency band signal and encoding the second frequency band signal into a second encoded frequency band signal,

Appln. No. 10/047,032  
Amdt. dated December 7, 2005  
Reply to Office Action dated October 20, 2005

- 10        • transmitting the first and second encoded frequency band signals via the transmission channel [(16)],
- decoding the first encoded frequency band signal into a first decoded frequency band signal and decoding the second encoded frequency band signal into a second
- 15        decoded frequency band signal,
- combining the first and second decoded frequency band signals into [an] a single output signal,
- reconstructing the second decoded frequency band signal when the second decoded frequency band signal is not
- 5        available, characterised in that the second decoded frequency band signal is reconstructed from the first decoded frequency band signal.

Claim 10 (Currently Amended). The method of transmitting an input signal via a transmission channel [(16)] according to claim 9, characterised in that the second decoded frequency band signal is reconstructed from the first decoded frequency band signal by extending a bandwidth of the first decoded frequency band signal.

Claim 11 (Currently Amended). The method of transmitting an

Appln. No. 10/047,032  
Amdt. dated December 7, 2005  
Reply to Office Action dated October 20, 2005

input signal via a transmission channel [(16)] according to  
claim 9, characterised in that a present frame of the second  
decoded frequency band signal is reconstructed from a present  
5 frame of the first decoded frequency band signal and from a  
previous frame of the second decoded frequency band signal.

Claim 12 (Currently Amended). The method of transmitting an  
input signal via a transmission channel [(16)] according to  
claim 9, characterised in that the first frequency band signal  
and the first encoded frequency band signal and the first decoded  
5 frequency band signal are signals having a low frequency band and  
in that the second frequency band signal and the second encoded  
frequency band signal and the second decoded frequency band  
signal are signals having a high frequency band.

Claim 13 (Currently Amended). A method of receiving, via a  
transmission channel [(16)], first and second encoded frequency  
band signals derived from a single input signal, the method  
comprising:

- 5           ● decoding the first encoded frequency band signal into a  
                first decoded frequency band signal and decoding the  
                second encoded frequency band signal into a second

Appln. No. 10/047,032  
Amdt. dated December 7, 2005  
Reply to Office Action dated October 20, 2005

decoded frequency band signal,

- combining the first and second decoded frequency band signals into [[an]] a single output signal,
- reconstructing the second decoded frequency band signal when the second decoded frequency band signal is not available, characterised in that the second decoded frequency band signal is reconstructed from the first decoded frequency band signal.

10

15

Claim 14 (Currently Amended). The method of receiving, via a transmission channel [[(16)]], first and second encoded frequency band signals according to claim 13, characterised in that the second decoded frequency band signal is reconstructed from the first decoded frequency band signal by extending a bandwidth of the first decoded frequency band signal.

5

Claim 15 (Currently Amended). The method of receiving, via a transmission channel [[(16)]], first and second encoded frequency band signals according to claim 13, characterised in that a present frame of the second decoded frequency band signal is reconstructed from a present frame of the first decoded frequency band signal and from a previous frame of the second

Appln. No. 10/047,032  
Amdt. dated December 7, 2005  
Reply to Office Action dated October 20, 2005

decoded frequency band signal.

Claim 16 (Currently Amended). The method of receiving, via a transmission channel [[(16)]], first and second encoded frequency band signals according to claim 13, characterised in that the first encoded frequency band signal and the first 5 decoded frequency band signal are signals having a low frequency band and in that the second encoded frequency band signal and the second decoded frequency band signal are signals having a high frequency band.

Claim 17 (Currently Amended). A speech decoder [[(60)]] for decoding first and second encoded frequency band speech signals derived from a single input speech signal, the speech decoder [[(60)]] comprising

5 a first decoder [[(26)]] for decoding the first encoded frequency band speech signal into a first decoded frequency band speech signal, [[and]]

a second decoder [[(28)]] for decoding the second encoded frequency band speech signal into a second decoded frequency band 10 speech signal, the speech decoder [[(60)]] further comprising a combiner [[(30)]] for combining the first and second

Appln. No. 10/047,032  
Amdt. dated December 7, 2005  
Reply to Office Action dated October 20, 2005

decoded frequency band speech signals into [[an]] a single output signal, the speech decoder [[(60)]] further comprising

reconstruction means [[(48)]] for reconstructing the second

15 decoded frequency band speech signal when the second decoded frequency band signal is not available, characterised in that reconstruction means [[(48)]] are arranged for reconstructing the second decoded frequency band speech signal from the first decoded frequency band speech signal.

20

Claim 18 (Currently Amended). The speech decoder [[(60)]] according to claim 17, characterised in that the reconstruction means [[(48)]] are arranged for reconstructing the second decoded frequency band speech signal from the first decoded frequency

5 band speech signal by extending a bandwidth of the first decoded frequency band speech signal.

Claim 19 (Currently Amended). The speech decoder [[(60)]] according to claim 17, characterised in that the reconstruction means [[(48)]] are arranged for reconstructing a present frame of the second decoded frequency band speech signal from a present 5 frame of the first decoded frequency band speech signal and from a previous frame of the second decoded frequency band speech

Appln. No. 10/047,032  
Amdt. dated December 7, 2005  
Reply to Office Action dated October 20, 2005

signal.

Claim 20 (Currently Amended). The speech decoder [[(60)]]

10 according to claim 17, characterised in that the first encoded frequency band speech signal and the first decoded frequency band speech signal are signals having a low frequency band and in that the second encoded frequency band speech signal and the second decoded frequency band speech signal are signals having a high  
15 frequency band.